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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO | |
|------------------------------------------------------|---------------|----------------------|-------------------------|------------------|--|
| 10/023,509 | 12/18/2001 | Mustafa Eroz | PD-980174A · | 4839 | |
| 75 | 90 05/21/2003 | | | | |
| Hughes Electronics Corporation | | | EXAMINER | | |
| Patent Docket Administration Bldg. 1, Mail Stop A109 | | | BAKER, ST | BAKER, STEPHEN M | |
| P.O. Box 956 El Segundo, CA | 90245-0956 | | ART ÜNIT | PAPER NUMBER | |
| , | • | | 2133 | | |
| | | | DATE MAILED: 05/21/2003 | .5 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary Application No. | red timely. of this communication. 133). y |
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| Examiner Stephen M. Baker 2133 - The MAILING DATE of this communication appears on the cover sheet with the corresponder. Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION Extensions of time may be available under the provisions of 37 CPR 1.138(a). In no event, however, may a reply be timely filled after SIX (b) MCNTHS from the mailing date of this communication. If the period for reply is specified above, the maximum statutory period will apply and will expire SIX (b) MCNTHS from the mailing date of this communication. If the period for reply is specified above, the maximum statutory period will apply and will expire SIX (b) MCNTHS from the mailing date of this communication. If the period for reply is specified above, the maximum statutory period will apply and will expire SIX (b) MCNTHS from the mailing date of this communication, even if timely filled, and the specified above, the maximum statutory period will apply and will expire SIX (b) MCNTHS from the mailing date of this communication, even if timely filled, may reduce an expect patient term adjustment. See 37 CFR 1.704(b) and the second period of the specific above, the mailing date of this communication, even if timely filled, may reduce an expect patient term adjustment. See 37 CFR 1.704(b) and the second period of timely filled, may reduce an expect patient term adjustment. See 37 CFR 1.704(b) and the second period of timely filled on 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final. 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution a closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213 Disposition of Claims 4) ☐ Claim(s) 8-31 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) ☐ Claim(s) 8-31 is/are rejected. 7) ☐ Claim(s) 8-31 is/are rejected. 7) ☐ Claim(s) are subject to restriction and/or | red timely. of this communication. 133). y |
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| If approved, corrected drawings are required in reply to this Office action. | · · |
| | xaminer. |
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| 12) The oath or declaration is objected to by the Examiner. | |
| Priority under 35 U.S.C. §§ 119 and 120 | |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | |
| a) ☐ All b) ☐ Some * c) ☐ None of: | |
| Certified copies of the priority documents have been received. | |
| 2. Certified copies of the priority documents have been received in Application No | <u>-</u> · |
| 3. Copies of the certified copies of the priority documents have been received in this Na application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | tional Stage |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provi | inional application) |
| a) The translation of the foreign language provisional application has been received. | sional application). |
| 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. | |
| Attachment(s) | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.4. 4) Interview Summary (PTO-413) Paper Notice of Informal Patent Application Cited (PTO-1449) Paper No(s) 3.4. 6) Other: | |
| S. Patent and Trademark Office PTO-326 (Rev. 04-01) Office Action Summary Part of Pape | |

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DETAILED ACTION

Claim Objections

1. Claims 8, 10, 12, 17, 20, 22, 24, 29 and 30 are objected to because of the following informalities: in claims 8, 12, 20 and 24, "a contents" apparently should be "contents"; in claims 10, 17, 22 and 29, "at same clock cycles from a second" apparently should be "in the same clock cycles as tail input bits are generated from a second"; in claim 30, "said generating is performed consecutively" apparently should be "said generating consecutively". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 3. Claims 12-14, 17, 24-26 and 29 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 6,023,783 to Divsalar *et al* (hereafter Divsalar).

Reference is hereby made to the description (col. 13, lines 35-54) of terminating the trellis for the constituent encoder shown by Divsalar in Fig. 4. Divsalar also teaches providing a plurality of such encoders in a single turbo encoder. Terminating the trellis of such a constituent encoder, as described by Divsalar, involves "generating tail output bits", which is performed using only the constituent encoder as shown, and thus

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"separately for each constituent encoder from ... contents of ... (a shift register) within (the constituent encoder) ... after an encoding of information bits by the ... constituent (encoder)". Divsalar's Fig. 9 example of a turbo encoder comprising two constituent encoders has four "branch" outputs. Terminating the trellis for this turbo encoder, in accordance with Divsalar's disclosure, involves "transmitting tail output bits from certain output branches of said two ... constituent encoders during trellis termination of said two ... constituent encoders".

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 8-31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,332,209 (hereafter, the parent application). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 8-31 of the present application respectively are essentially identical to the subject matter recited in

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claims 1, 1, 6, 7, 1, 2, 3, 4, 5, 6, 7, 1, 3, 1, 6, 7, 1, 2, 3, 4, 5, 6, 7 and 1 of the parent application.

Specification

6. The disclosure is objected to because of the following informalities: on page 4, line 31 and page 6, line 16, "tail input bit" apparently should be "tail input bits".

Appropriate correction is required.

Conclusion

- 7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (703) 305-9681. The examiner can normally be reached on Monday-Friday (11:00 AM 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

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Stephen M. Baker Primary Examiner Art Unit 2133

smb May 16, 2003